5. COMPUTER SCIENCE DOMAIN SUPPORTING COURSES

Course Title	**Multivariate Calculus**
Course Code	**SC-241**
Credit Hours	3
Category	CS Supporting
Prerequisite	Calculus and Analytical Geometry
Co-Requisite	None
Follow-up	None
Course Description	Functions of Several Variables and Partial Differentiation. Multiple Integrals, Line and Surface Integrals. Green's and Stoke's Theorem. Fourier Series: periodic functions, Functions of any period P-2L, Even & odd functions, Half Range expansions, Fourier Transform; Laplace Transform, Z-Transform.
Text Book(s)	Multivariable Calculus, 6th edition James, Stewart 2007 Cengage Learning publishers.
Reference Material	Calculus and Analytical Geometry, 6th edition. Swokowski, Olinick and Pence.1994.Thomson Learning EMEA, Ltd. Multivariable Calculus, 5th edition Howard, A. Albert, H. 1995, John Wiley.